

## Grants Mining District 2015 Activities and Goals

### Groundwater Investigation

**Purpose:** To strategically build on the understanding of impacts of mining and milling on the surface and bedrock groundwater in the Grants Mining District and the risks to human health through the development of a conceptual site model.

**Background:** EPA Region 6 initially investigated groundwater quality impacts from mining and milling in the Grants Mining District at the request of New Mexico agencies in the 1975. Since then, New Mexico agencies have continued to monitor municipal drinking water sources. With funding provided by EPA Region 6, the New Mexico Environment Department (NMED) has sampled existing private groundwater wells in 2008 and 2014; these wells are located in the San Mateo Creek Basin (SMCB) where there isn't access to municipal water sources and most of the groundwater wells have concentrations of radionuclides above drinking water standards whether completed in the alluvium or in the Dakota Sandstone aquifer.

In 2014, EPA Region 6 initiated an alluvial groundwater investigation in the SMCB using site assessment and enforcement dollars (totaling approximately \$500,000). The intent of the investigation was to attempt to determine background groundwater quality in the alluvium and to attempt attribution to certain mines where groundwater was discharged in very large volumes to access uranium-containing ore bodies.

#### **Proposed Activities in 2015:**

- Sampling of alluvial groundwater wells installed in 2014 in Spring and Fall in order to catch snow melt and post-monsoon groundwater conditions – cost estimate \$130,000
- Installation of additional alluvial groundwater wells (10) to further attribution to certain mines and mine activities and sampling in Spring and Fall in order to catch snow melt and post-monsoon groundwater conditions – cost estimate \$315,000
- Installation of bedrock wells into the Dakota Sandstone (8) in the Ambrosia Lake area since the sandstone subcrops in the alluvium with one round of sampling upon completion of well development – cost estimate \$1,000,000.

### Mine Site Evaluations

**Purpose:** To investigate and propose alternatives to mitigate, reduce, or eliminate the potential for human or ecological exposures to mining-related uranium contaminated waste at the Section 35 and 36 Mine Sites.

**Background:** Mine activities began at the Section 35 and 36 Mines in 1960 and ceased in 2005, with approximately 2.5 million tons of uranium ore produced. Since the uranium-containing ore body is approximately 700 feet below ground surface, millions of gallons of groundwater were pumped from the mine shafts and discharged to arroyos

and area surface water streams thus increasing the acreage impacted from mining activities. The total area impacted at the Section 35 and 36 Mine Sites is 600 acres.

Proposed Activities in 2015:

- Field investigation, data interpretation, and development and evaluation of actions to address unacceptable risk – cost estimate \$500,000.